

### Abstract of the Disclosure

A catheter having a flexible outer tube and a lubricious inner tube bonded within the flexible outer tube. One catheter has a distal outer tube formed of a substantial portion of a first, flexible material, an inner tube having a lubricious inside wall surface  
5 formed of a second, lubricious material, and an outer tube wall surface compatible with heat bonding the inner tube outside wall surface to the outer tube wall surface. A preferred flexible material is polyether block amide (PEBA) and a preferred lubricious material is polyethylene. One catheter utilizing the invention includes a flexible distal outer tube having an orifice through the tube wall and an inner tube inserted through the  
10 orifice having a lubricious inner layer surrounded by a tie-layer, surrounded in turn by the same flexible material forming the outer tube. One catheter has a PEBA outer tube heat bonded to a tri-layer inner guide wire tube formed of a polyethylene inner layer, a PEBA outer layer, and a PLEXAR™ tie-layer disposed between the inner and outer layers.